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EXAMINER

BALAOING, ARIEL A

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/772,344 | <b>Applicant(s)</b><br>KUROSE ET AL. |  |
|                              | <b>Examiner</b><br>Ariel Balaoing    | <b>Art Unit</b><br>2617              |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-11 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see page 11 and 12, filed 01/23/2006, with respect to the rejection(s) of claim(s) 1 and 12 under U.S.C. 102 (b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of OSTROFF et al (US 6,201,968 B1).

### ***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 2, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by OSTROFF et al (US 6,201,968 B1).

Regarding claim 1, OSTROFF discloses a mobile communication terminal for use in a cellular mobile communication system (abstract), comprising:

a circuit configured to acquire a first neighbor list from the first base station serving the mobile communication terminal in a standby mode, the first neighbor list storing data indicating first peripheral base stations existing near the first base station (abstract; col. 3, line 8-col. 4, line 13; monitor list is acquired from current serving site);

a memory configured to store the acquired first neighbor list (210; col. 3, lines 53-60);

a circuit configured to acquire, if the serving base station is changed in a standby mode from the first base station to a second base station, a second neighbor list from

the second base station, the second neighbor list storing data indicating second peripheral base stations existing near the second base station (520; abstract; col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; mobile device switches cells and acquires cell list from second cell);

a measurement circuit configured to measure, when the second base station is serving the mobile communication terminal in a standby mode, communication quality between the mobile communication terminal and each of the second peripheral base stations listed in the acquired second neighbor list, and communication quality between the mobile communication terminal and each of the first peripheral base stations listed in the stored first neighbor list (col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; col. 5, line 50-63); and

a circuit configured to select, as a hand-off destination candidate, one of the first peripheral base stations and the second peripheral base stations, which satisfies a preset condition, based on the measured communication quality (col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; col. 5, line 50-63).

Regarding claim 2, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. OSTROFF further discloses wherein the memory stores the first neighbor list until a number of occasions in which selection for selecting the hand-off destination candidate is performed reaches a preset value (col. 5, line 64-67; first neighbor list is replaced when conditions are deemed adequate).

Regarding claim 12, OSTROFF discloses a control unit incorporated in a mobile communication terminal for use in a cellular mobile communication system, the mobile

communication terminal also incorporating a radio unit configured to transmit and receive radio signals to and from base stations, the radio unit being connected to the control unit (abstract), the control unit comprising:

a first reception control section configured to make the radio unit to receive a first neighbor list from the first base station serving the mobile communication terminal in a standby mode, the first neighbor list storing data indicating first peripheral base stations existing near the first base station (abstract; col. 3, line 8-col. 4, line 13; monitor list is acquired from current serving site);

a memory configured to store the received first neighbor list (210; col. 3, lines 53-60);

a second reception control section configured to make the radio unit to receive, if the serving base station is changed in a standby mode from the first base station to a second base station, a second neighbor list from the second base station, the second neighbor list storing data indicating second peripheral base stations existing near the second base station (520; abstract; col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; mobile device switches cells and acquires cell list from second cell);

a measurement control section configured to measure, when the second base station is serving the mobile communication terminal in a standby mode, communication quality between the mobile communication terminal and each of the second peripheral base stations listed in the acquired second neighbor list, and communication quality between the mobile communication terminal and each of the first peripheral base stations listed in the stored first neighbor list, measurement of the communication

quality being performed based on the signals received by the radio unit (col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; col. 5, line 50-63); and

a selection section configured to select, as a hand-off destination candidate, one of the first peripheral base stations and the second peripheral base stations, which satisfies a preset condition, based on the measured communication quality (col. 3, line 8-col. 4, line 13; col. 5, lines 28-63; col. 5, line 50-63).

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over OSTROFF et al (US 6,201,968 B1) in view of WALLSTEDT et al (US 5,84,981).

Regarding claim 3, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. However, OSTROFF does not expressly disclose wherein the memory stores the first neighbor list for a preset time. WALLSTEDT discloses wherein a memory stores a neighbor list for a preset time (col. 15, line 23-col. 16, line 2; col. 18, lines 8-48; memory updates the neighbor list according to a predetermined time). Therefore for it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OSTROFF to include storage of a neighbor list for a preset time, as taught by WALLSTEDT, as periodic updates to the neighbor list can be used to filter a neighbor list to include sectors with a predetermined quality providing a more efficient monitored list.

6. Claims 4, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over OSTROFF (US 6,188,904 B1) in view of SATARASINGHE (US 6,112,089).

Regarding claim 4, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. OSTROFF further discloses wherein the measurement circuit measures reception quality from each of the first and second peripheral base stations (col. 3, line 8-col. 4, line 13; RSSI). However, OSTROFF does not expressly disclose wherein the pilot signal reception quality is measured. SATARASINGHE discloses wherein the pilot signal reception quality is measured (column 2:lines 25-45). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OSTROFF to measure the pilot signal quality, as taught by SATARASINGHE, as measurement of a received pilot channel in order to determine signal interference (signal quality) is well known in the art of hand over.

Regarding claim 5, see the rejections of the parent claim concerning the subject matter this claim is dependent upon. OSTROFF further discloses wherein the measurement circuit measures the communication quality between the mobile communication terminal and each of the second peripheral base stations listed in the acquired second neighbor list, the measurement circuit also measuring the communication quality between the mobile communication terminal and those of the first peripheral base stations listed in the stored first neighbor list (abstract; col. 3, line 8-col. 4, line 13). However, OSTROFF does not expressly disclose wherein the neighbor list is obtained by excluding the first peripheral base stations doubly listed as the second

peripheral base stations in the second neighbor list. SATARASINGE discloses wherein the neighbor list is obtained by excluding the first peripheral base stations doubly listed as the second peripheral base stations in the second neighbor list (Figures 2 and 3; column 3:lines 16-67). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OSTROFF to exclude doubly listed cells, as this increase processing speed and efficiency of the handover.

***Allowable Subject Matter***

7. Claims 6-11, and 13 are allowed.
8. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).
9. The following is an examiner's statement of reasons for allowance:

Regarding independent claims 6 and 13, the prior art of record fails to teach a second measurement circuit configured to measure the communication quality between the mobile communication terminal and each of the first peripheral base stations listed in the first neighbor list, if the second peripheral base stations do not satisfy the preset condition; and a second selection circuit configured to select, as the hand-off destination candidate, one of the first peripheral base stations, which satisfies the preset condition, based on the measured communication quality between the mobile communication terminal and each of the first peripheral base stations.

Regarding claims 7-11, these claims are allowed as being dependent upon independent claims that have been allowed.



Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ariel Balaoing whose telephone number is (571) 272-7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 AM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ariel Balaoing  
Art Unit 2617

AB

  
GEORGE ENG  
SUPERVISORY PATENT EXAMINER

Application/Control Number: 10/772,344  
Art Unit: 2683

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